this subchapter are as shown in paragraph (c) of this section. Customary units shown throughout this subchapter are generally not abbreviated.

(c) Conversion values. (1) Conversion values are provided in the following

table and are based on values provided in ASTM E 380-89, "Standard for Metric Practice.

(2) If an exact conversion is needed, the following conversion table should be used.

TABLE OF CONVERSION FACTORS FOR SI UNITS

Measurement	SI to U.S. standard	U.S. standard to SI
Activity	1 TBq=27 Ci	1 Ci=0.037 TBq.
Length	1 cm=0.3937008 in	1 in=2.540000 cm
•	1 m=3.280840 ft	1 ft=0.3048000 m
Thickness	1 mm=0.03937008 in	1 in=25.40000 mm
Mass (weight)	1 kg=2.204622 lb	1 lb=0.4535924 kg
, ,	1 gr=0.03527397 oz	1 oz=28.34952 gr
Pressure	1 kPa=0.1450377 psi	1 psi=6.894757 kPa
	1 Bar=100 kPa=14.504 psi	1 psi=0.06895 Bar
	1 kPa=7.5 mm Hg	·
Radiation level	1 Sv/hr=100 rem/hr	1 rem/hr=0.01 Sv/hr
Volume (liquid)	1 I=0.2641720 gal	1 gal=3.785412 I
,	1 ml=0.03381402 oz	1 oz=29.57353 ml
	1 m³=35.31466 ft³	1 ft <sup>3</sup> =0.02831685 m <sup>3</sup>
Density	1 kg/m <sup>3</sup> =0.06242797 lb/ft <sup>3</sup>	1 lb/ft3=16.01846 kg/m3

Abbreviation for units of measure are as follows:

[Amdt. 171-111, 56 FR 66159, Dec. 20, 1991, as amended by Amdt. 171-136, 60 FR 49108, Sept. 21, 1995; Amdt. 171-135, 60 FR 50302, Sept. 28,

## §171.11 Use of ICAO Technical In-

Notwithstanding the requirements of parts 172 and 173 of this subchapter, a hazardous material may be transported by aircraft, and by motor vehicle either before or after being transported by aircraft, in accordance with the ICAO Technical Instructions if the hazardous material:

- (a) Is packaged, marked, labeled. classified, described and certified on a shipping paper and otherwise in a condition for shipment as required by the ICAO Technical Instructions;
- (b) Is within the quantity limits prescribed for transportation by either passenger-carrying or cargo aircraft, as appropriate, as specified in the ICAO Technical Instructions;
- (c) Is not a forbidden material or package according to §173.21 of this subchapter or Column 3 of the §172.101 Table: and
- (d) Fulfills the following additional requirements as applicable:

- (1) For a material that meets the definition of a hazardous substance as defined in this subchapter, the shipping paper and package markings must conform to the provisions in §172.203(c) and 172.324, respectively, of this sub-
- (2) When a hazardous material, which is subject to the requirements of the ICAO Technical Instructions, is also a hazardous waste as defined in this subchapter:
- (i) The word "Waste" must precede the proper shipping name on shipping papers and package markings; and
- (ii) It must comply with §172.205 with respect to the hazardous waste manifests.
- (3) When a hazardous material is not subject to the requirements of the ICÃO Technical Instructions, it must be transported as required by this sub-
- (4) When a hazardous material, that is regulated by this subchapter for transportation by highway, is transported by motor vehicle on a public highway under the provisions of this section, the motor vehicle must be placarded in accordance with subpart F of part 172 of this subchapter and the shipping paper must include:

Abbreviation for units of measure are as joilows. Unit of measure and abbreviation:

(SI): millimeter, mm; centimeter, cm; meter, m; gram, g; kilogram, kg; kiloPascal, kPa; liter, L; milliliter, ml; cubic meter, m³; Terabecquerel, TBq; Gigabecquerel, GBq; millisievert, mSv;

(U.S.): Inch, in; foot, ft; ounce, oz; pound, lb; pounds per square inch, psi; gallon, gal; cubic feet, ft³; Curie, Ci; millicurie, mCi;

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- (i) The words "Dangerous When Wet" in association with the basic description when the Class 4, Division 4.3 label is required to be applied by the ICAO Technical Instructions; and
- (ii) Should include an indication that the shipment is being made under the provisions of this section or the letters "ICAO."
- (5) If a liquid or solid material in a package meets the definition of a poison according to this subchapter, and the fact that it is a poison is not disclosed in the shipping name or by a class entry, an indication that the material is a poison shall be entered on the shipping paper in association with the basic description. For transportation by motor vehicle, this indication must be made by entering the word "Poison or Toxic" on the shipping paper in association with the basic description.
  - (6) For radioactive materials:
- (i) Shipping papers for highway route controlled quantity radioactive materials shipments must meet the requirements of §172.203(d)(4) of this subchapter.
- (ii) Competent authority certification and any necessary revalidation for Type B, Type B(U), Type B(M), and fissile materials packages must be obtained from the appropriate authorities as specifed in §§173.471, 173.472 and 173.473 of this subchapter, and all requirements of the certificates and revalidations must be met,
- (iii) Except for limited quantities of Class 7 (radioactive) material, the provisions of §§172.204(c)(4), 173.448(e), (f) and (g)(3) of this subchapter apply.
- (iv) Limited quantities of radioactive materials must meet the provisions of §173.421, §173.424 or §173.426 as appropriate of this subchapter, and
- (v) Type A package contents shall be limited in accordance with §173.431 of this subchapter.
- (7) If a United States variation is indicated in the ICAO Technical Instructions for any provision governing the transport of the hazardous material, the hazardous material is transported in conformance with that variation.
- (8) Abbreviations may not be used in shipping paper entries or package markings unless they are specifically authorized by this subchapter. ICAO

- class or division numbers are not considered to be abbreviations.
- (9) When a hazardous material, which is subject to the requirements of the ICAO Technical Instructions, is a material poisonous by inhalation (see § 171.8 of this subchapter)—
- (i) The shipping description must include the words "Poison-Inhalation Hazard" or "Inhalation Hazard", as required in §172.203(m) of this subchapter;
- (ii) The material must be packaged in accordance with the requirements of this subchapter; and
- (iii) The package must be marked in accordance with §172.313 of this subchapter and labeled with "POISON" or "POISON GAS", as appropriate, in accordance with subpart E of part 172 of this subchapter.
- (10) Shipments of hazardous materials under this section must conform to the requirements for emergency response information as prescribed in subpart G of part 172 of this subchapter.
- (11) Packages of Class 1 (explosive) materials must be marked in accordance with §172.320 of this subchapter.
- (12) If an ammonium nitrate fertilizer or ammonium nitrate mixed fertilizer, must not meet the definition and criteria of a Class 1 (explosive) material.
- (13) Transportation of marine pollutants, as defined in  $\S171.8$  of this subchapter, in bulk packagings must conform to the requirements of  $\S\S172.203(1)$  and 172.322 of this subchapter.

[Amdt. 171-69, 47 FR 54821, Dec. 6, 1982]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting  $\S171.11$ , see the List of CFR Sections Affected in the Finding Aids section of this volume.

## §171.12 Import and export shipments.

(a) Importer's responsibility. Except in the case of a shipment from Canada conforming to §171.12a of this subchapter, each person importing a hazardous material into the United States shall provide the shipper and the forwarding agent at the place of entry into the United States timely and complete information as to the requirements of this subchapter that will apply to the shipment of the material within the United States. The shipper,